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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,783	05/27/2004	Mohammed Moin Hussaini	146128CT	3782

23413 7590 01/03/2006

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BLOOMFIELD, CT 06002

EXAMINER
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HORWAT, JENNIFER A

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 01/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/709,783	<b>Applicant(s)</b> HUSSAINI ET AL.	
	<b>Examiner</b> Jennifer Horwat	<b>Art Unit</b> 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.138(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/27/04</u> <u>6/1/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statements filed on 5/27/2004 and 6/1/2004 are in compliance with 37 CFR 1.97-1.98 and all references therein have been considered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Acker (US 6580938). Acker discloses a method and system for image guidance of a probe wherein a plurality of images are acquired, in one embodiment by CT, at a selected respiratory state (col 7, lines 60-66) on which entry and target positions may be displayed along with a trajectory computed between the two (figure 1, elements A', T, and 66). The probe is advanced when the patient is in the selected respiratory state (col 3, line 50), which is determined when motion due to respiration is within a predetermined tolerance of the desired respiratory state (col 10, lines 3-4). It is inherent

in the use of a CT system that the patient is moved into the system and cross-sectional images are obtained during the movement.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, 6, 8-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acker in view of Stoianovici, et al (US 2004/0162486). Acker, as discussed above, discloses a manual system for image guidance of a probe and fails to disclose using the method with under computer assistance. Stoianovici discloses a system related to robotic devices used in computer-assisted surgery. The system is coupled with a percutaneous access of the kidney (PAKY) needle driver wherein the computer assisted surgery robot aligns the needle (paragraph 30) and the needle is then driven along the trajectory calculated between the target and skin entry points (paragraphs 41 and 65) selected by the user. As the movement of the needle is determined by the hardware controlling the PAKY needle driver system, the speed and movement of the needle is inherently predetermined by the computer and sent to the robot moving the needle (figure 1). It is inherent that the computer assisted surgery system and the image guidance system have the required code on computer readable medium that control the operations of the systems previously discussed. It would have been obvious to one of

ordinary skill in the art at the time of the invention to modify the device disclosed by Acker with the disclosure of Stoianovici as the alignment and insertion of the needle will be more accurate than if done freehand as in the system disclosed by Acker.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Acker and Stoianovici as applied to claim 6 above, and further in view of Schweikard, et al (US 6144875). The system disclosed by Acker uses external field transducers to monitor the respiration state of the patient and does not explicitly disclose the use of infrared to monitor respiration. Schweikard discloses an apparatus and a method for compensating for respiratory and patient motion during treatment using infrared to track external markers (col 6, line 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosures of Acker and Schweikard with the teachings of the reference by Schweikard, as infrared detectors are prevalent in the imaging art and inexpensive and easy to use.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yanof, et al, Mills, et al, and Landi, et al disclose devices of note.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Horwat whose telephone number is (571) 272-2811. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jah  
12/9/2005

  
ELENI MANTIS-MERCADER  
PRIMARY EXAMINER